

## Mid Sussex Amateur Radio Society

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### Newsletter

Contributions are invited from all club members. The cut off date is the 15th of the month prior to publication.

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## Mid Sussex Amateur Radio Society

### NEWSLETTER

April 2007

# Mid Sussex Matters



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## FROM THE PRESIDENT'S CORNER.

Now we have an excellent new editor for our newsletter, a start has been made to updating the website and we had 30 members attend the informal meeting last Friday night. That's great!

On the other hand the conditions for the recent ARRL HF Contest were the worst I've experienced for years with only a few US stations on 20, very few on 15 and almost none on 10, confirming that we are at the bottom of the cycle. Things can only get better from now on, however, so keep listening; even if the bands sound dead, there is always someone out there.

Congratulations to all those who passed the recent Foundation examination, some of whom have already paid their subscription and become Club members. I am already hearing some of their calls on the nets. That's just what we want, so a very warm welcome to you all.

**Ken Gibson G3WYN**

### ***On The Cover .....***

Scenes from the HF Evening on 23 February. As Ken notes above, HF conditions are, at the moment, fairly dismal. In fact, the ARRL propagation expert recently reported a ten-day period with no sunspot activity at all. Do not despair. We are clearly at the bottom of the cycle and things *will* improve as this year progresses. If you have been avoiding the HF bands now is the time to start reviving your activity. The HF Evening was intended to give some pointers to those unfamiliar with this part of the spectrum. If your licence class does not permit HF operation, then now is the time to get busy working on an upgrade. It won't be long before the DX starts rolling in. CQ Magazine has recently published the HF Operator's Survival Guide, available for the modest sum of \$2.00. If anyone would like a copy, let me know and I will arrange a bulk order.

**Bob Clinton G0BUX**

## ***Changes to Penalties for the use of Mobile Phones While Driving***

The legislation to increase the penalty for using a hand-held phone while driving came into force on 27 February 2007.

- The use of a hand-held phone, or similar hand-held devices, while driving has been prohibited since 1 December 2003.
- The current £30 roadside fixed penalty notice increased to £60 and three penalty points will be added to the drivers' licence. If a case goes to court, then in addition to the points, discretionary disqualification is added. The existing maximum fine of £1,000, (£2,500 in the case of a bus/coach or goods vehicle), remains unchanged.
- Provided that a phone can be operated without holding it, then hands-free equipment is not prohibited although DfT advice will remain that drivers should switch to voicemail and not use a mobile in the car at any time.
- A hand-held device is something that "is or must be held at some point" during the course of making or receiving a call or performing any other interactive communication function.
- A device is "similar" to a mobile phone if it performs an interactive communication function by transmitting and receiving data.
- Using any mobile phone when driving has been scientifically proven to be distracting. Those who drive poorly as the result of distraction from a conversation on a hands-free phone continue to risk prosecution for not having proper control of a vehicle. The penalties are exactly the same as for the hand-held phone offence.

Are there any exceptions?

- A driver may call 999 or 112 in response to a genuine emergency.
- Two-way radios are not covered by this offence but other devices for sending or receiving data are included if they are held while driving, i.e. a PDA, BlackBerry or similar device.

The second exception exempts amateur radio operators from the prohibition on the use of mobile radio equipment while driving but amateurs should be aware that the police might still issue a summons for unsafe driving if in their opinion the use of the equipment has been or might be the cause of an accident. The obvious lesson is that we should never use our mobile equipment in any way that impairs safety, even if it is not, *prima facie*, an offence.

*(This article was adapted from the AA Members Newsletter)*

## Mid Sussex Happenings

April 6	Fox Hunt. Sydney West Car Park, Leylands Rd/London Rd, Burgess Hill
April 13	G4UDU talk on RTTY & PSK (D)
April 15 (Sun)	West London Radio Show, Kempton Park (no MSARS mini-bus)
April 20	Radio Night & table top sale (D)
April 27	"Noise Cancelling Equipment" lecture by Graham Somerville (U)
May 4	Quiz – moderated by Gavin Keegan G6DGK & Phil Brown M5BTB (U)
May 11	Radio night & prep for Mills (D)
May 12/13 (Sat/Sun)	Mills on the Air at Jill Mill, Pyecombe
May 18	Radio Night & table top sale (D)
May 19 (Sat)	Trip to Martin Lynch – organized by Alan Cragg G8YKV
May 25	Construction Contest (U)
June 1	Boule evening - venue TBA
June 8	APRS Demonstration – Bob Clinton G0BUX (D)
June 10 (Sun)	Practical Wireless QRP, Firlie Beacon
June 15	Radio evening at Jill Mill Car Park
June 22	Fox Hunt
June 29	Radio Night & table top sale (D)
July 1	Seaford Fun Day - Organised by John Humphrey G6XTW
July 6	Field Day prep – early start (U)
July 7/8 (Sat/Sun)	VHF National Field Day
July 13	Radio Night (D)
July 20	Radio Night & table top sale (D)
July 27	Field Exercise—Test reception within Sussex (U)
August 3	Chairman's Barbecue
December 7	Christmas Dinner, Thatched Inn, Hassocks

Meetings are held on Friday evenings starting 7:45 at  
Cyprus Hall, Cyprus Road, Burgess Hill. West Sussex, unless other-  
wise noted. U=upstairs, D=Downstairs  
**Visitors are always Welcome**

## From the Chair

Well, it only seems a couple of days ago that I sat down to write my first "From the Chair" and here we are in to the second week of March. You all should have by now received your newsletter, the first one for some time I know, but hopefully we are now "on a roll", so please keep Bob, G0BUX, fed with articles and pictures.

This past month, as I have mentioned, has just flown by. Nevertheless the events diary seems to be getting full, whereas a month ago things looked a little thin on the ground. Coming up this year? Well, I know that we are planning two fox hunts (despite the ban, hi hi!) the first in April and hopefully, by the time you are reading this, our spring junk sale will have been and gone, closely followed by Windmills on the Air. Early July is of course VHF NFD which we intend to enter.

I have asked over the last few meetings for volunteers, to form an "outside group", not to act as a contest group, but a pool of people that can be mainly relied upon to assist in events and contests that M.S.A.R.S. participate in, such as Windmills on the Air, NFD and, this year, Seaford Fun Day. The greatest amount of work of course is the setting up and striking the equipment at the beginning and the end of the day. A lot of people will turn up to operate, but hey! if it wasn't for the six or so members that always turn out, you wouldn't have a station to play with! So even if you make the effort to help set up just one station during the year, it will make all the difference....PLEASE!

May I take this opportunity to congratulate Chris, G4ZCS, and his team for another successful Foundation course which took place at the back end of February, where all six students passed their exam with flying colours! Three have decided to join us as members, so please make them feel welcome and assist them if you can. They are Luke, Alex and Andy; I'm still working on the chap from Worthing! Still on the training theme, Chris is looking for helpers and lecturers from September, for 12 weeks, as we will be starting our second Intermediate course and possibly our first Advanced course. If you feel that you can help, please contact Chris or me.

Finally for this month, a reminder that a mini bus is running to Martin Lynch in May. If you are interested please speak to Alan, G8YKV, to book a seat. Cost should be around a fiver. M.L.&S will supply the fish an' chips. Oh yes, and relieve you of your hard earned cash!

73 for now

**Kim Newland G7AIE**

## Editorial

The first QSO is always the hardest – maybe the same is true of the first issue of a newsletter. I survived getting the March issue to the printer – now let's see if I can get another one out the door. Thanks for the kind comments I have had from several of you on my first effort.

This issue introduces a couple of new regular features. Regular, that is, if I get regular contributions from you, the members. The first is "Shack of the Month" which provides a look at where those disembodied voices originate from. All you need to do to earn your month of fame is to send me photos of the operating position, antennas or anything else of interest, along with a few words of description. Threat: if I don't get some contributions, then you may see a photo of my shack – a sight not for the faint of heart.

The second regular feature might be entitled "My New Toy" and provides an opportunity for you to tell us about the new rig or accessory that you have acquired. Appropriately, the first in this series is our Chairman's report on his new FT-2000. But even if your new treasure isn't on this scale, your comments on it will still be of interest.

And of course construction articles and reports of operating events are more than welcome.

Finally, a plug for my old QTH. The Missouri QSO party is from 1800Z 7 April to 2359Z 8 April. CW and phone on 160, 80, 40, 20, 15 and 10. Full details are available at [www.qsl.net/w0ma/mo\\_qso\\_party.htm](http://www.qsl.net/w0ma/mo_qso_party.htm)

**Bob Clinton GØBUX**

### CLUB NET TIMES

Join in if you can. All times are UK CLOCK times.

Sunday	08:00	3.74MHz ± QRM
Sunday	11:00	S14 (145.350MHz)
Sunday	20.00	HY Net 433.125Mhz
Wednesday	20:00	S14 (145.350MHz)
Weekdays	13:30	21.330MHz. Work the USA
Tuesday	20:30	3.725 MHz ± QRM SCARF

The following letter was received by our then-chairman on 24 December 2006

Dear "Chairmum" Sue,

May I thank you and the Committee for electing me Vice President for my effort in producing the 40<sup>th</sup> Anniversary edition of the newsletter.

What started many years ago, when Russell was Chairman, as a "History of the Society" took many hours of sorting through early newsletters and Committee minutes. It was taking too much of my time that I put it on "hold".

As we were approaching our 40<sup>th</sup> anniversary I thought it would be nice to complete the "History of the Society" but make it an Anniversary Edition. Also included in this edition were photos taken by members of the Society and many taken by myself over the years I had been a member. All this was assembled into the usual newsletter format by Rob 2E0RJA, for which I thank him for the excellent layout.

At our Christmas dinner the presentation of the leather bound version was a complete surprise to me and will be well looked after, together with the hand-made card by Stella, that was signed by many of the members.

Once again, many thanks, and I feel honoured to have been made Vice President of the Mid Sussex Amateur Radio Society.

Yours sincerely,

Mike Pollock G8KMP

## Lynch Mob

Here's your chance to get rid of that excess cash that has been accumulating since Christmas – the annual trip to Martin Lynch & Sons, on 19 May. Even if you aren't burdened by the money, it's always an interesting day out and there will be free fish and chips. Sign up no later than **4 May** for the MSARS mini-bus. Depending on numbers, the cost for the bus will be about £7 - £10, but there must be a minimum of 10 passengers. Add your name to a sign-up list at a club meeting or contact Alan Cragg G8YKV, 01273 844511

*All Amateur Radio activity in Iraq has been suspended until the security situation there improves. The suspension affects both Iraqi citizens as well as any foreigners, including military personnel and contractors -- who have been on the air from Iraq identifying with YI9-prefix call signs (Thanks to the ARRL for this information)*

## New Members

Please welcome the following new members to MSARS and look out for them on the air.

MORXO	Luke Milburn
MOZSA	Tom Haylock
M3TEU	Alex Henderson

## Membership Renewal Reminder

The Society Constitution says that subscriptions must be paid no later than 31 March each year, so if you haven't paid yours for 2007 yet, you need to do so. Please contact Mike Pollock G8KMP for a renewal membership form. E-mail address is: mike.g8kmp@virgin.net or write to him at: 25 Meadow Lane, Burgess Hill, West Sussex RH15 9HZ

## Training Plans

We have arranged another Foundation course for the weekend of 12 & 13 May. If you know anyone who wants to register please let me know ASAP as the deadline for booking and paying is Friday 20 April. An Intermediate course is being planned for September, Tuesday evenings, and an Advanced for the Autumn. Please register your interest NOW to help planning these courses.

**Chris Saunders, Training Officer.**

A source of personalised gear such as baseball caps, t-shirts, polo shirts, sweat shirts, mugs and other items is [www.tintagelcrafts.co.uk](http://www.tintagelcrafts.co.uk), which is run by M3WBH.

## Deadline

The deadline for items for the May issue of Mid Sussex Matters is

**15 April 2007**

## Warning!

Despite this being the April issue, there are not intended to be any April Fool items. On the other hand, you should read the April issues of such august journals as Rad-Com and QST with care.

## Novel Circuit Checker

In the £ shops are the small "press to operate" LED pocket torches.

Some are red using just one 3 volt lithium cell, whilst the white ones are 6 volt, using 2 cells.

I have, for many decades, used multimeters, buzzers, (some built-in on these meters), or simple torch lamp and battery.

Modern ICs transistors & mosfet components often don't take kindly to these methods of testing: the buzzers produce high voltage transients, the torch bulbs pass sometimes high currents, so I have used one of the small red LED torches to do the jobs of tracking and testing with more safety.

The torch is operated, by squeezing the sides together, which allows one LED lead to touch the cell, having a short insulating sleeve, keeping it away from contact.

I have opened the case, removed the sleeve from this LED lead, and bent it outwards, so that it protrudes from the case side, near the actual LED itself; then I have used one half of a micro test clip jumper lead, the cut end being connected to the now unused side of the lithium cell.



This now makes an ideal circuit test unit. There is a much lower current now being used whilst testing, which will save damaging some of these delicate circuits.

**Reg Moores G3GZT**

## Shack of the Month

If you have been on the weekday 15M net you will undoubtedly have worked – or at least heard – one of the regulars, N4XAT, Bob D'Imperio of Villas, New Jersey. It is with great pleasure that we present a photo of Bob's shack as our first "Shack of the Month". Bob's main HF rig is a Kenwood TS-870 but he also has a TS-850S as a backup. He also has an Ameritron AL-811 Amplifier which is used only on MSARS Net. Bob is also active on CW – on the desk you can see a Bencher paddle, a straight key and one of his two Vibroplex Bugs.

N4XAT can also be heard (though probably not from Mid Sussex) on VHF where he uses a Yaesu FT-1500M. But you might be able to raise him via Echolink as he is equipped for this as well.

Outside Bob has a MA-40 crank-up tower (20 to 40 feet depending on wind/wx – usually around 28 feet) which supports a Cushcraft A-3 triband yagi and a 2-meter yagi. He also has a G5RV and a 40meter "Bazooka".



*YOUR shack could appear in this spot in a future issue. All you need to do is send photos of the operating position, antennas, the station cat, etc, along with a brief description of what is pictured.*

## USA Drops Morse Requirement

Did you notice a change on the HF bands on February 23? That's when the current 5 WPM Morse code requirement officially disappeared from the Amateur Radio Service rules in the USA. On or after that date, applicants for a General or Amateur Extra class Amateur Radio license no longer have to demonstrate proficiency in Morse code. They'll just have to pass the applicable written examination. Deletion of the Morse requirement - still a matter of controversy within the amateur community - is a landmark in Amateur Radio history.

"The overall effect of this action is to further the public interest by encouraging individuals who are interested in communications technology or who are able to contribute to the advancement of the radio art, to become Amateur Radio operators; and eliminating a requirement that is now unnecessary and may discourage Amateur Service licensees from advancing their skills in the communications and technical phases of Amateur Radio," the FCC remarked in the "Morse code" Report & Order that settled the matter, at least from a regulatory standpoint. The ARRL had asked the FCC to retain the 5 WPM for Amateur Extra class applicants, but the Commission held to its decision to eliminate the requirement across the board.

Until 1991, when a Morse code examination was dropped from the requirements to obtain a Technician ticket, all prospective radio amateurs had to pass a Morse code test. With the change the US will join a growing list of countries that have dropped the need to demonstrate some level of Morse code proficiency to earn access to frequencies below 30 MHz.

The new rules also put all Technician licensees on an equal footing, whether or not they've passed a Morse code examination. Starting February 23, Technicians gained CW privileges on 80, 40, 15 meters and CW, RTTY, data and SSB privileges on 10 meters. (3525-3600 kHz CW only, 7025-7125 kHz CW only, 21,025-21,200 kHz CW only, 28,000-28,300 kHz CW, RTTY and Data, 28,300-28,500 kHz CW, SSB. The power limit is 200 W PEP output for Technician operators) Since this change involves the elimination of the code requirement it is unlikely that we will see a sudden influx of Technicians on 80, 40 or 15 meters but we may meet some on 10 – should anyone be so fortunate as to make a trans-Atlantic QSO on this band during the current nadir of propagation.

Those who have passed the written element for the General class license but have not passed the Morse element will now be able to obtain a General ticket by applying for it but the upgrade will not be automatic. Hams in this group will gain full General class operating privileges so we are more likely to work them on most bands using SSB or data.

(This article was extracted from the ARRL Letter Vol 26 Number 03 and the ARRL web site and is republished by permission of the American Radio Relay League)

## SIZE MATTERS!

A new, very welcome participant in our 15m nets over the past few months has been Jack Seitner, AA3GZ, a young 80 year old from Doylestown, Pennsylvania. Calling in on an otherwise empty band, Jack has joined us on many occasions when we thought that no Ws would be heard.

In talking to Jack however it became clear that he took no prisoners and his antenna farm has been carefully designed for maximum efficiency without resorting to beams.

Jack's 15m signal comes to us via his Terminated Horizontal Rhombic Antenna, 4 60m legs, in a diamond shape. That's about 356 feet long and 162 feet wide, involving some 777 feet of wire plus feeders, all 20m above ground with each end fed with 400 Ohm line and brought into his shack. There he selects the direction he wants it to fire and fits a (big) 450 Ohm non inductive resistor to one of the 400 Ohm lines and feeds the other via a 4:1 Ruthroff balun and a 50 Ohm line to his 1500 watt (YES Fifteen Hundred watt), linear. One heading is 60 degree true which gives him complete coverage of Europe, the other direction 240 degree true heads toward New Zealand. This is quite an antenna!

The antenna works on 80, 40, 20, 17 15 and 10m but what about Top Band 160m? Not to be outdone, Jack has a ¼ wave vertical for this band, a 65 foot vertical wire with 4 135 foot radials all mounted 10 feet above ground and fitted with 2 44 foot top loading wires to increase the capacitive effect. This is fed via a buried 50 Ohm coax line back to the shack.

As a back up to all this Jack has a G5RV, the print out of which shows how the radiation pattern from this antenna breaks up into smaller lobes on 15m. This antenna was, however, inaudible here in Cuckfield when the signal from the Rhombic was around S9.

It's not given to many of us to have 3 ½ acres of land on which to install our antenna farms but it's refreshing to find amateurs like Jack who take antennas seriously enough to put up the best they can, realizing that it's not the rig at the bottom of the feeder that does the radiating, it's the wire you have up in the air.

Even Jack's huge Rhombic is a compromise; the ARRL handbook and the many websites now available to us all show bigger and even better antennas but what a set up he has and how his signal booms in when 15m is open! Jack has sent me a complete set of data giving azimuth patterns for all his antennas and these are available for you to check out on request..

Thanks for joining us Jack, we hope to have many more chats with you. Perhaps your example will persuade MSARS members to put up some wire and stop thinking about short, loaded, compromise commercial antennas. Remember, Size Matters and Jack has proved it to us all.

**Ken Gibson G3WYN**

## Visit to OZ, January 2007

This visit arose directly from my friendship with Len Killip, G0APZ, a former member of MSARS and, since his passing, my friendship with his wife Rita and daughter Fiona. Fiona lives in Muswellbrook, N.S.W. Len visited there several times in the past 20 years and I used to make contact with him there when he operated the radio at the shack of Les VK2RJ. A few months ago Fiona invited me to visit them in January of this year and to attend the wedding of her daughter Kimberley, which was to take place at Mount Glorious near Brisbane on 27 January.

On 10 January I set out to fly by Air France from Dublin to Paris, on to Hong Kong, and from there to Sydney, but due to the late departure of my first flight I didn't arrive at Sydney until 12 hours later than planned.

First, a reunion with Rita at a hotel near the airport, which put me back on schedule, then a visit from Bobby, VK2ADG, formerly EI7DG who lives in Sydney, and who brought a GPS unit to help me navigate my way around Sydney and further abroad. Next I collected the rental car which I had arranged and in a little while we were driving northward over the wonderful Sydney Harbour Bridge. Soon we made a rendezvous with Fiona and husband Tony and we headed up to Muswellbrook. During the week which followed we made trips to Newcastle, a busy city on the coast with wonderful waterfront views and great restaurants. We spent some time in the Hunter Valley, a famous area of vineyards, and made a helicopter trip over the district. We had a pleasant visit to the home of Les, VK2RJ, who gave us such a warm welcome. It was good to recall times past when I had spoken to Les on 20 metres. I hope to re-establish contact between Les and Eric, G3HUA, with whom he has spoken many times in the past.

During that time we met Bobby, VK2ADG, again and also found time to visit Sam, VK2AMY, with whom I have maintained contact over the years since we first met in 1991. For our third week we flew to Brisbane and arrived in the middle of a thunderstorm with torrential rain which made navigation rather difficult, even with the GPS. But finally made it to Mount Glorious and the wedding site.

The wedding was held in a forest clearing and was officiated over by an Aboriginal chief in tribal costume. The bridegroom, being Japanese, was dressed like a typical Samurai warrior, the bride in a beautiful colourful kimono, as was her sister Debbie and her little girl train-bearer. A feature of the day was the planting of many trees by the 100 guests to mark the special day. A very moving ceremony and a no-nonsense event. We moved down to Brisbane and made a visit to George, VK4WZ, whom I had known for 15 years but never met in person, at his fine Queensland home. Finally an overnight at the home of Sheila, sister of Len, G0APZ, followed by an early start to Brisbane airport for the flight to Sydney and the long haul back to Ireland.

My second trip to OZ was a great success. I wish it was a little closer to home !

**Sean Linehan EI7CV**

## So what is it then?

Question:- What has 79 buttons, 26 rotary knobs and 147 menus?

Answer :- The new(ish) Yaesu FT 2000 Transceiver, that's what!

And guess what, just before Christmas, I went out and bought one. Yes I know, more money than sense, etc., but I was promised one by Gerry, EI9DZ, last year in Friedrichshafen at it's European launch; only thing is, it must have got lost in the



post, because it never arrived.....sorry Gerry, but that TENTEK looks nice!

Joking aside, I do have this beast of a transceiver and this is just my experience over the last few months of owning one. Now, as most of you know, my HF transceiver was/is a Kenwood TS570DGE and a wonderful thing it is too; also in the shack is a very tired, but still working TS430S as a back-up rig. So, why the FT2000? Well,

I needed a new 6mtr transceiver, (FT2000 is HF/50Mhz), and intend to move the TS430 on to someone who can make good use of it, hopefully an M3, thus the TS570 will become the back-up and /P rig. I had the full sales pitch in Germany last year from Yaesu with a great demonstration of the DSP filtering and other functions that this transceiver can do.....I was sold!

First impressions. It's BIG! It does have a built in PSU, so it's also b\*\*\*dy heavy. Well like most amateurs, I plugged it in and pressed the button. Nothing happened! Hmmm, out came the instruction manual, There is a main power switch on the back! (Damned crafty these Japanese). Anyway, after a while getting to know my way around the front panel, I was interested in the VRF (variable roofing filter) which is fitted as standard; working on the 1.8-28Mhz bands the VRF allows you to narrow the pass bands much more than that of a normal rig with fixed filter. Next, there are the IF Roofing Filters which are auto selectable or you can manually select 15KHz, 6Khz or 3Khz as one requires. Finally for this article, I will mention the Contour Filter. This DSP variable filter enables the user to null or peak tuneable segments of the receiver pass band, which will "null" interference or "peak" the wanted signal. The amount of bandwidth to which this filtering is applied can be adjusted via one of the 147 menus!...Not sure which one yet Hi Hi.

Having mastered the "simple" controls it was time to use the FT2000 on the air. First contact was the Sunday 80mtr net. First comment by our net controller, was

about the audio, as did everybody else on the net. It was rubbish. So after the net I set about adjusting things. There are 18 menus just to tailor your audio, so where do you start? Chris, G4ZCS, came to the rescue with the use of a spectrum analyser at his QTH, so as I made adjustments to the audio, Chris could see at a glance what it was doing to my voice. Well, after some time, we had something "nice" coming though the speaker at his end! I still would like to hear a recording of the audio played back, plus I'm looking to dig out my old desk mic and try that.

In conclusion of the last few months living with the FT2000, it's a very nice piece of kit with a great receiver and once set up quite easy to use, but you must have time to read and UNDERSTAND the functions of the menu system, take notes of your settings, and have someone at the other end listening to you! It's not a rig for the faint hearted. I am still finding things out by talking to other users. Is it worth the money? Hmmm, I'll let you know in the future on that one, but it works out cheaper than the FT1000MP MK V plus all its filters when that was new. So I like it, you may not, time will tell as to how popular this transceiver will be.

Kim Newland G7AIE

## The Surplus Equipment Sale 23 March



The excitement mounts as the bidding is about to begin



G6XTW hands over treasure to a happy buyer.



G6DGK registers amazement at the size of the bids. M5JWS remains unruffled.